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A NEW GENUS AND TWO NEW SPECIES OF THE DIPTEROUS FAMILY PHORIDAE

By Charles T. Greene

Species of Phoridae exhibit considerable variation in habit. Some are known to develop upon carrion, upon dead and decaying snails, upon dead insects of various orders, and upon decaying vegetable matter. Two species are recorded from cocoons of the elm sawfly, *Cimbex americana* Leach, and two others from nests of the wasp *Vespula germanica* (Fabricius), while several species have been collected from exhumed human bodies. The larvae of *Syneura cocciphila* Coquillett have been reported infesting the heads of the cottony cushion scale, *Icerya purchasi* Maskell, and unidentified larvae, thought to be those of a phorid, have been found in the heads of termites. Numerous species are myrmecophilous. Some are said to attack ants directly, as, for example, *Apocephalus coquilletti* Malloch and *A. similis* Malloch, which are recorded as attacking species of *Camponotus;* while others are known to be inquilines or commensals.

The material described in this paper came to the writer recently for identification. Both species were taken in association with certain species of ants, upon which they may be parasitic.

ATTAMYIA, new genus

Head of medium size; frons with one pair of postantennal bristles; the usual frontal bristles present, except that the middle pair ordinarily located immediately above the postantennal pair are absent. Mesopleuron bare. Wings of usual size; third vein not forked at

tip; first and third veins approximated; first vein entire. Legs rather slender, front and middle femora of equal width, about half as wide as the posterior pair; middle tibiae with spines other than the apical spurs.

This genus looks very much like *Syneura* and runs out near it in Malloch's table of North American Phoridae,[1] but it is distinct and easily separated from that genus by the characters given above.

Genotype.—*Attamyia texana*, new species.

ATTAMYIA TEXANA, new species

FIGURE 69, *a–d*

Female.—Black, dull, dorsum of the thorax with a metallic sheen; abdomen with a bluish-green iridescence; sixth segment twice as long as the fifth, tapering toward the apex and shiny on the apical half. Frons (fig. 69, *a*) slightly wider than long; four strong bristles on each side; upper two at the ends of two transverse rows of four bristles each; postantennal bristles smaller, proclinate, in some specimens cruciate, in others convergent. Antenna (fig. 69, *b*) with first two joints yellow; third joint grayish brown, elongate, more pointed at the apex; arista nearly black; first two joints small, third very slender, with short pubescence. Palpus pale yellow, darker at the tip, each with three or four black spiny bristles. Scutellum dull brownish black with two bristles. Halteres dark brown; base of stem yellow, tip of knob black. Wing (fig. 69, *c*) with the costa ending decidedly short of the middle; fringe short; first section about four times as long as the second; thickening along the anterior costal edge narrow. Ovipositor (fig. 69, *d*) very slender, shiny black, as long as the preceding segment. Legs entirely yellow, slender; posterior femora with a brownish infuscation.

Length, 1.25 to 1.5 mm.

Type locality.—Kisatchie National Forest, Provencal, La.

Type and paratypes.—U. S. N. M. no. 52287.

Remarks.—Twenty-three specimens, all from the type locality, taken in association with *Atta texana* Buckley. One specimen is dated June 29, 1937, the remainder July 13, 1937. Dr. M. R. Smith is the collector.

The following note on the habit of this species is quoted from a letter from Dr. Smith:

"I saw probably 30 to 100 of the parasites flying over the mound and parasitizing ants here and there. I did not have a hand lens, but with my naked eye I could see that the parasite was striking its

[1] Malloch, J. R., The insects of the dipterous family Phoridae in the United States National Museum. Proc. U. S. Nat. Mus., vol. 43, pp. 411–529, 7 pls., 1912.

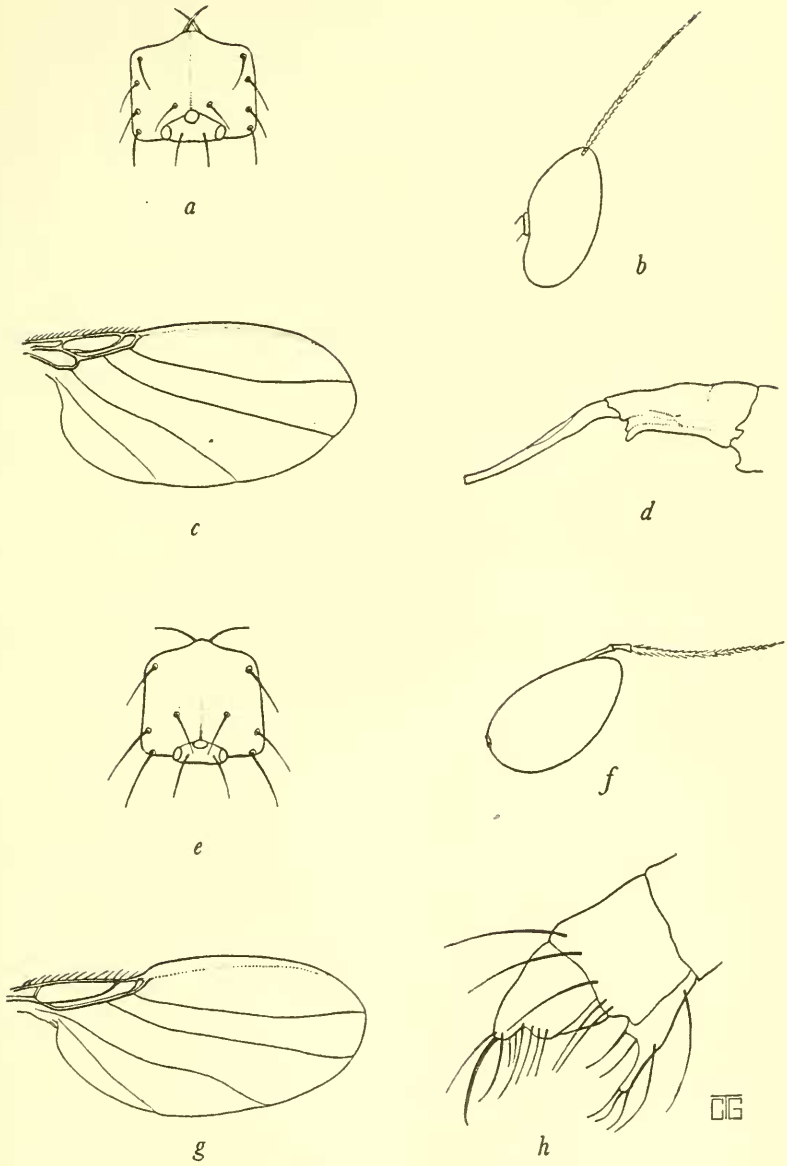

FIGURE 69.—NEW PHORID FLIES

a-d, Attamyia texana, new genus and species: *a,* Frons of female; *b,* third joint of female antenna; *c,* wing of female; *d,* ovipositor.

e-h, Apocephalus coecum, new species; *e,* Frons of female; *f,* third joint of female antenna; *g,* wing of female; *h,* ovipositor.

victim back of the head. Some of the ants tried to combat the parasite by standing at an angle approximately 90° with the ground and opening their mandibles in a threatening manner. The flies were very alert and wary and the ants unable to cope with them. Some of the ants that were struck by the fly stopped, bent their heads downward, and with their front legs attempted to wipe the back of their heads, others that were struck did not seem to be disturbed in the least. All ants attacked kept on working or running around and did not show any immediate ill effects. Apparently a single fly can oviposit a large number of consecutive times (not on the same ant). They hover over the ants and seek a propitious time to strike. The fire ant *Solenopsis xyloni* when struck by the phorid *Apocephalus* (*Plastophora*) *coquilletti* Malloch will fall over on its side or back, seemingly unable to coordinate leg movement, but this is not true of the fungus ant so far as I have observed."

Genus APOCEPHALUS Coquillett

APOCEPHALUS COECUM, new species

FIGURE 69, *c–h*

Female.—Black, dull; frons (fig. 69, *e*) dull, nearly square, with three strong frontal bristles on each side; just above the middle of the front two large bristles, slightly anterior to and forming a transverse row with the middle bristles; ocellar bristles large and forming a straight transverse row with the upper bristles; postantennal bristles as large as the frontals, divergent and slightly reclinate. Antenna (fig. 69, *f*) yellow; third joint very large, somewhat elliptical, apical end more pointed, with a brownish infuscation; arista a little longer than antenna, first joint slightly longer than second, both tinged with yellow, third joint black, with short pubescence. Palpus pale yellow, with three or four black spiny bristles near the tip. Thorax brownish on dorsum, pleura pale yellow; mesopleuron bare; scutellum darker, with two large bristles; halteres large, stems pale yellow, knobs black. Legs pale yellow, hind femur with a brown infuscation on both sides at the apex, all tarsi blackish. Abdomen with a broad pale area down the middle of the dorsum, nearly white on the first segment, luteous on segments 2 to 5; segments 2 to 5 broadly white along apical edges, broadly black on their sides; sixth segment (fig. 69, *h*) black, with a very narrow white apical edge and ten large bristles on the posterior margin (the six in the middle the strongest); on the ventral side of the sixth segment a reddish-yellow projection, with large black bristles arranged as in figure 69, *h*; the apical or genital segment shiny black, with a slight tinge of yellow at the apex, about one and one-half times as long as broad (the length appearing

to vary somewhat, owing to the segment being partly retractile), at the tip two long, very stout spinelike bristles which are parallel from above and curved downward in profile (fig. 69, *h*). Wing (fig. 69, *g*) with the costa decidedly short of the middle, fringe long; first section about four times as long as the second; third section one half as long as second; first vein about one-half as thick as third; thickening along anterior costal edge rather broad and extending almost to tip of fourth vein.

Length, 2.25 to 2.5 mm.

Type locality.—Uvalde, Tex.

Type and paratypes.—U.S.N.M. no. 52288.

Remarks.—Four specimens collected at the type locality on June 16, 1937, by A. W. Lindquist, of the U. S. Bureau of Entomology and Plant Quarantine. A note stating that "the flies were flying over ants (*Eciton coecum* Latreille) in an insectary" accompanied the specimens. This species is most similar to *Apocephalus spinicosta* Malloch, from which it is immediately distinguishable by its darker color and more definite markings.

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